State of Illinois

EMS Education Committee Report

October 27, 2014; Updated 11/21/14

In July, the education committee discussed that in defining effective teaching there are two components:

- Teacher practices: How well they do the art and science of teaching
- Results: What teachers accomplish – *how well students learn*

Point 3 of the Action Agenda for the July meeting:

3. Work with Jack to plan and schedule educator workshops around the state that will focus on the Danielson domains of teaching; curriculum development and design; creating and using lesson plans; writing goals and objectives; evaluation of faculty and students; and measurement of learning. These workshops would key off of and expand upon the content presented in the NAEMSE IC1 course that serves as the initial course for lead instructors. We will also include time at each workshop for networking and sharing creative ideas among participants.

Item writing workshops were held at the following locations:

September 29, 2014 - Mt. Vernon
October 3, 2014 - ICEP Headquarters in Downers Grove
October 10, 2014 - Springfield

The root cause analysis continues…

Over 120 educators and IDPH reps attended the workshops and there was great discussion relative to current practice. We continue to discover important issues relative to the exam results.

Program/instruction-related
• It was very encouraging to see that without exception, every program that sent representatives to the workshops were interested in providing the best educational experience possible based on their situations. The IDPH reps were also very engaged and supportive of the process. There were large variations in the challenges, but all were dedicated to comparing their current practice against brain-based, evidence-based teaching and measurement strategies. Many are doing a great job with good outcomes and they will reinforce what they are doing now. Others expressed appreciation for the information and will review their program and consider need for change based on their local resources.
• The large majority of participants do not currently create their quizzes or exams from blueprints that are mapped to specific, measureable, attainable, realistic, and timely (SMART) objectives that are written to higher levels of the cognitive domain. This could result in course exams that are not valid (test what they are intended to test in a well-balanced way across all the critical points in a particular content area). All paramedic educators were encouraged to use a sample final blank exam blueprint and table of specifications to map their own finals to see where gaps may exist.
• A fairly large percentage of participants indicated that they create their quizzes and exams from publisher's question banks, often without editing or revision. These questions are sometimes written at very low levels of mastery (recall and understanding) and may not satisfactorily prepare the students to take a high-stakes exam unless they are carefully edited to add complexity that requires the student to apply knowledge to field situations, problem solve, and think critically. High stakes exams often start item difficulty at application and work up to synthesis and evaluation. Students should not be required to define terms or state isolated facts on a final summative exam.
• A large number of programs do not (or did not) give cumulative final exams after the student had successfully completed all course components (classroom, hospital clinical, and field internship). This resulted in the students being finished with the academic work for a long time without any focused review prior to taking the state exam. Programs accredited by CoA shared that this was an area of citation for them and they now offer cumulative finals.
• A large percentage indicated that all of their quizzes and exams are still given in a written format using pencil and paper. Few used Scantron sheets to rapidly grade multiple choice exams or complete an item analysis. This puts the students at a disadvantage when they must take a computer based test as they are not used to the format and could explain some of the score erosion. Educators were encouraged to familiarize their students with taking questions on a computer using commercial programs or those they create internally.

Exam-related
• A fair number expressed frustration with being **unable to register their students to take the state exam in a timely manner,** especially if the CTS representative was on vacation or away from the office. This has resulted in long lag timed after a student is finished of six to eight weeks for some. The National Registry published findings several years ago that show test scores drop remarkably if a student is three months out from class. The actual cause of this is not known – whether Resource Hospitals have failed to send signed rosters to CTS in a timely manner, registration forms have been inappropriately completed and fees not paid in a timely manner, or CTS has not responded to them in a timely manner – however, it should be explored.
• One possible root cause to be explored is the **item difficulty rating currently in place**. The original subject matter experts (SMEs) that wrote and edited the current exam bank may have rated a question as easy or of medium difficulty, when student performance shows that it is hard and fewer numbers are answering it correctly. This could mean that there are very good questions, but the exam is skewed to a higher difficulty level than intended. • Dr. Rodgers is doing an analysis of the items to identify those that 30% or more are missing. • IDPH will convene **second panels of SMEs** that were NOT involved in the original writing groups to do a blind review of those items to rate their difficulty so we can check for inter-rater reliability.
• It also appears that the **reporting of exam scores may be misleading**. Rather than combining all attempts into the cumulative pass rates, it would be clearer if the data were separated and reported by 1st, 2nd, and 3rd attempts before rolling it up into all attempts. Many programs report that their pass rates on FIRST attempt are rather good. However, is a student fails a second time, they are also likely to fail the third and/or subsequent times. These small numbers of repeat failures skew the statistics. Stu and Jack are looking at how the scores will be reported.
• Programs continue to report frustration that they **do not get meaningful statistics** on how their graduates perform on the exam. Rather global statistics are reported to the Resource Hospitals, but that is not always forwarded to the class program sites. Instructors should be able to see for their programs (site codes) the pass percentages for each exam area. Without this information, they do not know their strengths and weakness, so it is impossible to plan accurately to improve particular areas of instruction. Given that this is simple data reporting from the CTS databanks, this seems a reasonable request that we respectfully ask to be explored.
• We **do not currently have a refresher course template** or sample curriculum for state examinees who fail three times. There is a refresher curriculum for the NREMT exams. Something to consider.
• We **do not currently have a program review/remediation plan** in place that consistently evaluates sites with performance that fails to meet a defined standard. Thus, in some cases, programs continue to have passing challenges, but they are not mentored effectively to improve. This is routinely done for nursing programs and would be helpful if implemented for EMS.

If anyone was unable to attend one of workshops and would like the handout, please contact Connie Mattera at CMATTERA@NCH.org and one will be sent to you.

Exam score results (7/1 - 9/30/14) announced at EMS Council meeting on November 19, 2014

	1st attempt	2nd attempt	3rd attempt
EMT-B	69%	32%	20%
EMT-I	>80%	50%	50%
EMT-P	75%	28%	31%

The practice tests created by CTS from inactive questions in the item banks have been taken by 317 candidates since their implementation. They appear to be a successful strategy to improve test scores.

Still working on the following Action Agenda items from July:

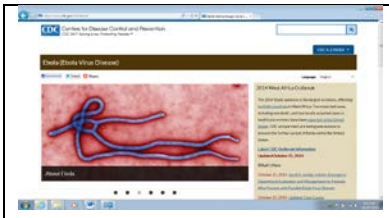
1. Ask CTS if they can give us a breakdown of how the items are performing that are a carryover from the old bank (used prior to the transition to computer-based testing) as contrasted to how the newly written items are performing. (Analysis in process and will be reported at Dec. SME meetings)
2. See if it is possible to mirror our processes to those of the National Registry with respect to piloting several items in each exam that do not count towards the applicant's score, but are used to collect data on how it is performing before rolling it into the active test bank. (Not in current CTS contract, will need to explore how this might be done)

What is the consensus preference for next Educator workshop topic? (Group voted for bolded options)

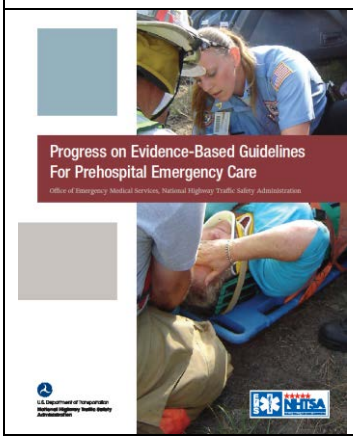
1. **Curriculum design and development – creating lesson plans; writing goals and objectives; implementing student-centered learning activities**
2. Student teaching and evaluation in the psychomotor domain: Use of skill sheets, practical exams
3. Student teaching and evaluation in the affective domain: Emotional and social intelligence; how to measure the affective objectives
4. **Preceptor education and mentoring; Field internship models and measuring student competency**
5. How to design and implement meaningful continuing education that is new, novel, and tied to standards
6. *Others???*

OTHER NEWS:

EMS Scope of Practice Surveys	• Stages 1 and 2 are completed and returned from the EMS MDs. IDPH staff is tallying the results. • They will complete the process once the Rules addressing the new education standards are sent up to the Governor's office for review and approval. • The Education Committee will be tasked with creating educational modules (bridge and for entry level learners) to assist in implementing the new scopes of practice academic content.
National Registry direct data Imports	IDPH continues to have their IT staff work with the NR to accomplish a direct download of testing scores to facilitate and shorten the time for a passing candidate to achieve licensure in Illinois. The IDPH goal is to have an on-line payment option in place in 2015 for those candidates who seek Illinois licensure after passing the NR exam.
Education Standards rule creation	A group of subject matter experts from northern, central, and southern Illinois have been working with Jack and Paula every other week to draft the rules. **Process of adoption** • Draft created by IDPH reps and selected SMEs • Approved by IDPH legal – sent to Gov. Office • Once approved, they become "official" and all feedback to IDPH must be recorded • Sent to Council for 90 days seeking comments • Council comments considered by IDPH; accepted changes sent to JCAR • Rules filed for 2 comment periods before becoming ratified
EMS for Children Protocols	Will be finalized in 2015 based on national evidence-based guidelines. Educators should be prepared to implement these concepts into their programs.
Burn Surge Annex published **Tabletop exercises announced**	A table top exercise to evaluate our capacity to flex up to accommodate large numbers of burn patients will be held in **Northern Illinois on 3/10/15** and for **Central/Southern Illinois on 3/24/15.** It would be a great if EMS CE could be preparing our personnel relative to burn management and the contents of the Burn Surge Annex prior to those tabletops so we stay synchronous with the hospital planning for these events.
Pediatric and Neonatal Surge Annex	Also published. While mostly directed to hospital preparedness, the Annex addresses transfer of children and roles at Resource Hospitals. Please review and incorporate into EMS CE as you believe is needed for your service area.
Ebola education Key points to make with your students in concert with anything the local EMS MD would like communicated to them:	**Key Points:** • The likelihood of contracting Ebola is extremely low unless a person has direct unprotected contact with the blood or body fluids (like urine, saliva, feces, vomit, sweat, and semen) of a person who is sick with Ebola or direct handling of bats or nonhuman primates from areas with Ebola outbreaks. o **Instructions for putting on and removing PPE have** been published online at http://www.cdc.gov/HAI/prevent/ppe.html and http://www.cdc.gov/vhf/ebola/pdf/ppe-poster.pdf[PDF - 2 pages](http://www.cdc.gov/vhf/ebola/pdf/ppe-poster.pdf). o CDC Guidance on Personal Protective Equipment To Be Used by Healthcare Workers During Management of Patients with Ebola Virus Disease in U.S. Hospitals, Including Procedures for Putting On (Donning) and Removing (Doffing) – Oct 20 http://www.cdc.gov/vhf/ebola/hcp/procedures-for-ppe.html



- EMS must assess all patients for symptoms and risk factors for Ebola. Notify the receiving hospital in advance when bringing in a patient with suspected Ebola, so that proper infection control precautions are taken. Wait in the ambulance until hospital representatives meet you and direct you to the appropriate receiving area.
- Consult guidelines that are posted as needed on the CDC Ebola webpage(http://www.cdc.gov/vhf/ebola/index.html) and the memo issued by IDPH. This information is intended to complement existing guidance for healthcare personnel, Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Virus Disease in U.S. Hospitals(http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html)



Since 2008, the National Highway Traffic Safety Administration (NHTSA) Office of Emergency Medical Services and the Emergency Medical Services for Children (EMSC) Program (Health Resources and Services Administration), have been working with EMS stakeholders to create and pilot test a model for developing and implementing **evidence-based guidelines (EBGs)** for prehospital emergency care. NHTSA has published the progress (Appendix A) of the project with the EMS community.

To access full report go the NHTSA's website: www.ems.gov , or see the link on the Northwest Community EMS System website (www.nwcemss.org) under Committees and/or breaking news on the home page.

NAEMSE Instructor 1 and 2 Courses in Illinois for 2015 are being finalized and will be published shortly. Go to www.naemse.org for information regarding upcoming courses all over the US and registration form.

Do not get confused with the National Association of EMT's educator course that is published as an on-line offering on their website. Their course was designed specifically for those that teach NAEMT courses and is not an approved substitute for gaining IDPH Lead Instructor status.

2015 EMS Education Committee meetings:

January 26, 2015	10:30 am – 12 noon
April 27, 2015	10:30 am – 12 noon
July 27, 2015	10:30 am - 12 noon
October 26, 2015	10:30 am - 12 noon

All meetings are teleconferenced at the following sites:

ICEP Offices: 3000 Woodcreek Drive, Suite 200; Downers Grove, IL 60515-5429
630.495.6400 Ext. 222

Parkland College, Champaign, IL
Contact: Rick Thompson Phone: 217-353-2269

Illinois Central College North Campus at 5407 N. University in Peoria (Cedar Building, Room C105), Peoria, Illinois 61635-001; Office - 309-999-4667; Mike Dant; Fax - 309-673-9626

Marion Regional Office (State of Illinois IDPH)

EMS/Bell Building, Springfield (State of Illinois IDPH)

Respectfully submitted:

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Chair, IDPH EMS Education Committee